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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,885	10/31/2003	Debargha Mukherjee	100201426-1	2006

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

ANYIKIRE, CHIKAODILI E

ART UNIT	PAPER NUMBER
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2621

NOTIFICATION DATE	DELIVERY MODE
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06/05/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary	Application No. 10/698,885	Applicant(s) MUKHERJEE, DEBARGHA	
	Examiner CHIKAODILI E. ANYIKIRE	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 2,6, 10-14,18-20 and 28-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-9,15-17 and 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application is responsive to application number (10698885) filed on October 31, 2003. Claims 1-37 are pending and have been examined.

Response to Arguments

2. Applicant's arguments with respect to claim 1, 3-9, 15-17, and 21-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1, 3-5, 7-8, 15-17, and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guedalia (US 6,536,043) in view of Schoner et al (US 5,903,282, hereafter Schoner).

As per **claim 1**, Guedalia discloses a data communications method comprising:

receiving a media data stream organized in accordance with a frame prediction data structure which comprises compressed anchor frames (Col 21 Ln 10-12; discloses the frame prediction being between key frames (i. e. anchor frames) and inter-frames, which means that prediction has taken place), and the media data stream also including a table of contents (TOC) which points to the location in the media data stream where each frame in the stream begins (Col 28 Ln 10-49; the disclosure expresses the use of a TOC as a database system that organizes the frames by numbers);

initially decoding only the anchor frames and storing them: (Col 21 Ln 10-12 and Col 27 Ln 53-55; the anchor frames in the disclosure are referred to key frames);

initially displaying at least one visual image using an anchor frame (Col 21 Ln 10-12 and Col 23 Ln 50-57; the disclosure states previewing video data and that the frames are between key frames, which means the first frame to be decoded and displayed would be a key frame);

receiving a request to change the displaying of the at least one visual image from a user input device (Col 21 Ln 50-55) which requires another frame to be displayed (Col 21 Ln 50-52);

randomly accessing the other frame by looking up its location in the TOC (Col 28 Ln 44-48; the database provides the capability of random access); and

another visual image using the randomly accessed frame (Col 28 Ln 44-48; the database provides the capability of random access).

However, Guedalia does not explicitly teach a plurality of compressed bi-directionally predicted frames (B-frames) which are associated with the anchor frames.

In the same field of endeavor, Schoner teaches a plurality of compressed bi-directionally predicted frames (B-frames) which are associated with the anchor frames (Col 7 Ln 43-49 and Col 8 Ln 10-33; Schoner discloses motion compensation, which is an aspect of prediction and the B-frames being associated with anchor frames, which can be I-frames or P-frames); and

responsive to the other frame being a B-frame, decoding the B-frame using one of the stored and decoded anchor frames which is associated with the B-frame, the decoding of the B-frame being out of sequence with respect to any B-frames that may be between one of the associated anchor frames and the B-frame (Col 7 Ln 43-48 and Col 8 Ln 10-33).

Therefore, it would have been obvious for one having skill in the art at the time of the invention to modify Guedalia with the motion compensation of the B-frame of Schoner. The advantage is that there is a reduced memory requirement, improved synchronization, and improved error-recovery according to the present invention (Col 7 Ln 47-49).

As per **claim 3**, Guedalia discloses the method of claim 1 wherein the media data stream comprises for a plurality of multiple sequences of frames organized in the frame prediction data structure, the sequences being synchronized with one another (Col 28 Ln 10-25; the reference disclosing a database that contains multiple sequences represented by blocks that include multiple frames in each single block) and

the TOC pointing to the location in the media data stream where each frame in the stream begins in accordance with a sequence number and a location of the frame

within a sequence identified by a sequence number (Fig 3A and 3B; Col 28 Ln 10-55. this section of the prior art discloses a database setup with frame numbers (i.e. sequence numbers) used to reference the synchronized media data stream).

As per **claim 4**, Guedalia disclose the method of claim 3 wherein the synchronized sequences include a base sequence in which the anchor frames.

However, Guedalia does not explicitly teach wherein the synchronized sequences include a base sequence in which the anchor frames are all Intra code frames (I-frames) and at least one other synchronized sequence in which the anchor frames include predicatively coded (P-frames); and

wherein an I-frame in the base sequence predicts a P-frame in the at least on other synchronized sequence.

In the same field of endeavor, Schoner discloses wherein the synchronized sequences include a base sequence in which the anchor frames are all Intra code frames (I-frames) and at least one other synchronized sequence in which the anchor frames include predicatively coded (P-frames) (Col 4 Ln 35-41; the prior art states a well known in the art fact, which is that anchor frames are referred to be I-frame and/or P-frames and in this case both I and P frames serve as an anchor frame); and

wherein an I-frame in the base sequence predicts a P-frame in the at least on other synchronized sequence (Col 8 Ln 10-33; the P-frame is a predictive frame used as an inter-frame to efficient compress video signals and are associated with I-frames during prediction).

Therefore, it would have been obvious for one having skill in the art at the time of the invention to modify Guedalia with the motion compensation of the B-frame of Schoner. The advantage is that there is a reduced memory requirement, improved synchronization, and improved error-recovery according to the present invention (Col 7 Ln 47-49).

As per **claim 5**, Guedalia discloses the method of claim 1.

However, Guedalia does not explicitly teach wherein the wherein the synchronized sequences include a base sequence in which the anchor frames include at least one P-frame and at least one other synchronized sequence in which the anchor frames include at least one P-frame; and wherein the P-frame in the base sequence predicts the at least one P-frame in the at least one other synchronized sequence.

In the same field of endeavor, Schoner teaches wherein the wherein the synchronized sequences include a base sequence in which the anchor frames include at least one P-frame and at least one other synchronized sequence in which the anchor frames include at least one P-frame; and wherein the P-frame in the base sequence predicts the at least one P-frame in the at least one other synchronized sequence (Col 4 Ln 35-41 and Col 8 Ln 10-33).

Therefore, it would have been obvious for one having skill in the art at the time of the invention to modify Guedalia with the motion compensation of the B-frame of Schoner. The advantage is that there is a reduced memory requirement, improved synchronization, and improved error-recovery according to the present invention (Col 7 Ln 47-49).

As per **claim 7**, Guedalia discloses the method of claim 1 further comprising:
providing configuration parameters regarding capabilities associated with a receiving device and usable to implement scaling of media data to be received (Fig 5, element 78; Col 21 Ln 64-Col 22 Ln 7 and Col 30 Ln 34-48);

receiving media data scaled according to the configuration parameters and comprising a plurality of frames for generating a plurality of respective images (Fig 5, element 78; Col 30 Ln 34-48).

As per **claim 8**, Guedalia discloses the method of claim 7 further comprising accessing the configuration parameters within a sending device (Fig 5, element 78; Col 21 Ln 64-Col 22 Ln 7 and Col 30 Ln 34-48); and

scaling the compressed media data according to the configuration parameters to provide data steams of the compressed media data comprising different amounts of data for a given subject (Fig 5, element 78; Col 30 Ln 34-48).

Regarding **claim 15**, arguments analogous to those presented for claim 1 are applicable for claim 15.

Regarding **claim 16**, arguments analogous to those presented for claim 1 are applicable for claim 16.

As per **claim 17**, Guedalia discloses the decoder of claim 15 wherein the compressed media data comprises data for a sequence of a plurality of images comprising a linear order (Figs 3A and 3B; Col 21 Ln 5-6; the Figs and disclosure show a plurality of frames that are linearly ordered), and the processing circuitry is configured to decode the compressed media data of the another frame out of sequence and

responsive to user input (Fig 2, element 36; Col 21 Ln 5-18 and Ln 47-63; the disclosure showing the ability of random accessing encoded frames, which would then be decoded for display).

As per **claim 21**, Guedalia discloses the decoder of claim 15 wherein the processing circuitry is further configured to provide configuration parameters corresponding to capabilities of a recipient communications device associated with the compressed media data decoder, and wherein the compressed media data comprises data scaled according to the configuration parameters (Fig 5, element 78; Col 21 Ln 5-18, Col 21 Ln 64-Col 22 Ln 7 and Col 30 Ln 34-48).

As per **claim 22**, Guedalia discloses the decoder of claim 21 wherein the processing circuitry is configured to decode the scaled data (Fig 2, element 36; Col 27 Ln 46-67).

As per **claim 23**, Guedalia discloses the decoder (Fig 2, 36) of claim 15 wherein the processing circuitry is configured to decode no more than a single one of the second type of frames to depict the another one of the images (Col 21 Ln 5-18).

Regarding **claim 24**, arguments analogous to those presented for claim 1 are applicable for claim 24.

Regarding **claim 25**, arguments analogous to those presented for claim 3 are applicable for claim 25.

Regarding **claim 26**, arguments analogous to those presented for claim 4 are applicable for claim 26.

Regarding **claim 27**, arguments analogous to those presented for claim 5 are applicable for claim 27.

6. Claim 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guedalia (US 6,536,043) in view of Schoner et al (US 5,903,282, hereafter Schoner) in further view of well known art.

As per **claim 9**, Guedalia discloses the method of claim 1.

However, Guedalia does not explicitly teach wherein the frames individually comprise temporal, spatial, signal-to-noise ratio, and interactivity levels of scalability.

However, the examiner takes official notice that temporal, spatial, signal-to-noise ratio, and interactivity levels of scalability are standard processes in video compression and image enhancement. It would have been obvious to incorporate these levels of scalability for individual frames because it is a conventional procedure routinely implemented in the art.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIKAODILI E. ANYIKIRE whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272 - 7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CEA/

/Andy S. Rao/

Primary Examiner, Art Unit 2621

May 28, 2008